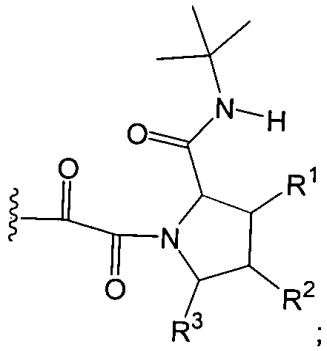
Please add the following new claims, i.e., claims 19-26:

19. An improved mechanism based inhibitor of HIV or FIV aspartyl protease of a type having an N-terminus, a C-terminus, and a core structure for linking the N-terminus to the C-terminus, the N-terminus including an aromatic amino acid residue linked to said core structure, the C-terminus including a heterocyclic ring including a ring nitrogen linked to said core structure, the core structure being isosteric with a scissile amide bond of an HIV or FIV aspartyl protease substrate, wherein the improvement comprises:

said core structure being an a-keto amide with the following structure:



;

wherein:

R^1 is a radical selected from the group consisting of -H, -OH, -O(C_1-C_6 alkyl), -OBn, -$OCH_2C_6H_4(OH)$, -$OCH_2C_6H_3(OH)_2$, and -OP;

R^2 is a radical selected from the group consisting of -H, -OH, -O(C_1-C_6 alkyl), -OBn, -$OCH_2C_6H_4(OH)$, -$OCH_2C_6H_3(OH)_2$, and -OP;

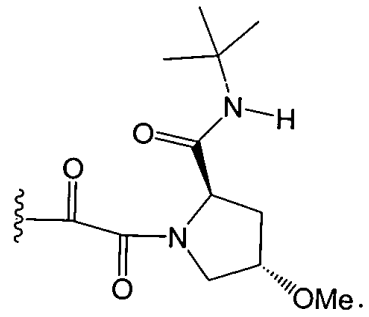
R^3 is a radical selected from the group consisting of -H, -CH_2OH, -CH_2O(C_1-C_6 alkyl), and -CH_2OP;

where P is a hydroxyl protecting group;

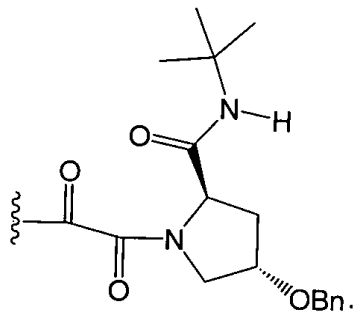
with the following provisos:

R^1, R^2 and R^3 cannot all be hydrogen.

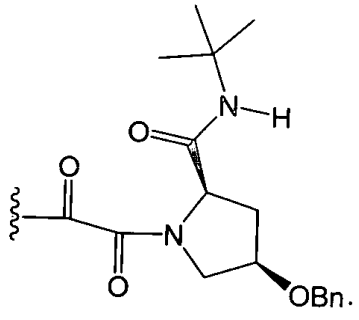
20. An improved mechanism based inhibitor as described in claim 19 with the following structure:



21. An improved mechanism based inhibitor as described in claim 19 with the following structure:

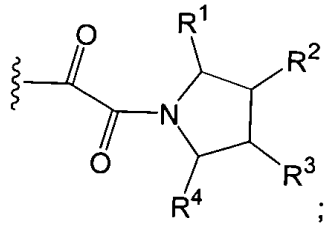


22. An improved mechanism based inhibitor as described in claim 19 with the following structure:



23. An improved mechanism based inhibitor of HIV or FIV aspartyl protease of a type having an N-terminus, a C-terminus, and a core structure for linking the N-terminus to the C-terminus, the N-terminus including an aromatic amino acid residue linked to said core structure, the C-terminus including a heterocyclic ring including a ring nitrogen linked to said core structure, the core structure being isosteric with a scissile amide bond of an HIV or FIV aspartyl protease substrate, wherein the improvement comprises:

said core structure being an a-keto amide with the following structure:



;

wherein:

R^1 is a radical selected from the group consisting of -H, $-CH_2OH$, $-CH_2O(C_1-C_6$ alkyl), $-CH_2OP$, -C(O)NH-Ile-Gln-OBu-*t*, and -C(O)NH-Ile-Gln-Thr-NH_2;

R^2 is a radical selected from the group consisting of -H, -OH, $-O(C_1-C_6$ alkyl), -OBn, $-OCH_2C_6H_4(OH)$, $-OCH_2C_6H_3(OH)_2$, and -OP;

R^3 is a radical selected from the group consisting of -H, -OH, $-O(C_1-C_6$ alkyl), -OBn, $-OCH_2C_6H_4(OH)$, $-OCH_2C_6H_3(OH)_2$, and -OP;

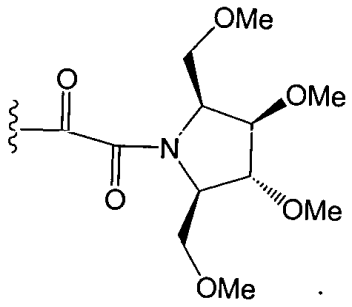
R^4 is a radical selected from the group consisting of -H, $-CH_2OH$, $-CH_2O(C_1-C_6$ alkyl), and $-CH_2OP$;

where P is a hydroxyl protecting group;

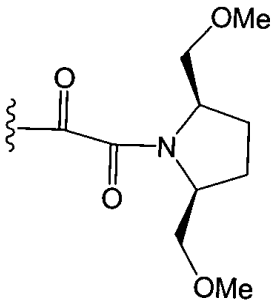
with the following proviso:

R^1, R^2, R^3 and R^4 cannot all be hydrogen.

24. An improved mechanism based inhibitor as described in claim 23 with the following structure:



25. An improved mechanism based inhibitor as described in claim 23 with the following structure:



26. An improved mechanism based inhibitor as described in claim 23 with the following structure: